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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/526,342	03/02/2005	Gerald Dean Erdman	DN 99-009	8932

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Michael J Herman
Minerals Technologies Inc
One Highland Avenue
Bethlehem, PA 18017

EXAMINER

FIORITO, JAMES

ART UNIT	PAPER NUMBER
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1754

MAIL DATE	DELIVERY MODE
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05/23/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/526,342	Applicant(s) ERDMAN, GERALD DEAN	
	Examiner James A. Fiorito	Art Unit 1754	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-9 and 11-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-9, and 11-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, 7-8, and 11 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Pope '929.

Pope teaches a process of producing precipitated calcium carbonate, comprising the steps of: (a) providing 98% calcium hydroxide (Column 9 Lines 46-51, Claims 3 and 4); (b) carbonating the calcium hydroxide with carbon dioxide gas for a time sufficient to at least partially convert the calcium hydroxide to calcium carbonate (Claims 3 and 4); (c) comminuting the at least partially converted calcium hydroxide (Claim 3 and 4); and (d) sequentially repeating steps of carbonating and comminuting for a time sufficient to substantially convert the calcium hydroxide to calcium carbonate having at least about a 90 weight percent conversion to calcium carbonate and having a solids concentration of

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at least about 92 weight percent (Claims 3 and 4). The process of Pope is continuous until at least a 99% conversion is achieved (Claims 3 and 4). Pope teaches that the moisture content in the precipitated calcium carbonate is between 10 and 20 percent (Claim 3).

Claims 4-6, 9, and 12-16 rejected under 35 U.S.C. 103(a) as being unpatentable over Pope '926 as applied to claims 1-3, 7-11, and 15-16 above, and further in view of Pope '926.

Pope teaches a process of making calcium hydroxide by mixing calcium oxide and water at an elevated temperature of about 200 degrees F (Column 8 Lines 38-45).

Since Pope teaches that the calcium hydroxide producing process occurs simultaneously with the carbonating step, Pope does not disclose the water content of the calcium hydroxide produced from the process. However, it would have been obvious to use the process of making calcium hydroxide taught by Pope to make the 98% calcium hydroxide that is required by pope (Example 2).

Further, it would have been obvious to produce a calcium hydroxide substantially free from water by mixing calcium oxide with water by the process of Pope, since Pope teaches that the carbonate pigment has a moisture content of about 10 percent (Claim 3). Also, It is well settled that determination of optimum values such as these process parameters is within the skill of one practicing in the art. In re Boesch, 205 USPQ 215 (CPA 1980).

Response to Arguments

With respect to the applicant's argument regarding comminuting, it appears that the process of Pope simultaneously carbonates and comminutes the calcium hydroxide to form the calcium carbonate product; Figure 1 Item 32 shows a blade that creates a pulverant material (Column 5 Line17). In Figure 1 Pope shows that the calcium hydroxide may be comminuted and carbonated simultaneously (Figure 1, Items 32 and 60).

With respect to applicant's argument regarding repeating alternating steps of carbonating and comminuting, there does not appear to be any unexpected result provided by this process step. In general, the transposition of process steps of the splitting of one step into two, where the processes are substantially identical or equivalent in terms of function, manner and result, was held to not patentably distinguish the processes. *Ex parte Rubin*, 128 USPQ 440 (Bd. Pat. App. 1959)

With respect to the applicant's argument regarding a solids concentration of at least about 92 weight percent, the moisture content of Pope would include at least about 92 percent (Claim 3).

With respect to the applicant's argument regarding the forming of calcium hydroxide according to instant claim 12, it would have been obvious to form calcium hydroxide according to claim 12 since Pope teaches hydrating calcium oxide to form calcium hydroxide, and Pope requires 98% calcium hydroxide made by hydrating lime (Example 2, Column 9 Lines 49-50).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Fiorito whose telephone number is (571)272-7426. The examiner can normally be reached on 9am - 6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on (571) 272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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